

In the Claims:

Please amend the claims as follows:

1. (Currently Amended) A high stability, low emission, fuel emulsion composition for a reciprocating engine comprising:

a water phase emulsion having a) about 26–50 % by weight purified water; b) about 50–74 % by weight hydrocarbon petroleum distillate; c) 2–9 % by weight antifreeze; and an additive package including at least one surfactant and at least one stabilizer, said at least one stabilizer includes ammonium nitrate, said ammonium nitrate is configured as a ignition enhancer and an emulsion stabilizer; and

wherein said water phase emulsion having has an average droplet diameter of about 6 microns to less than about 10 microns Sauter mean diameter.

2. (Cancelled) The fuel emulsion composition of claim 1 wherein said emulsion having an average droplet diameter of between about 5 microns and about 6 microns.

3. (Previously Amended) The fuel emulsion composition of claim 1 comprising 30 - 35 % by weight purified water.

4. (Original) The fuel emulsion composition of claim 1 wherein said purified water is purified using reverse osmosis, distillation, or ion exchange processes.

5. (Cancel) The fuel emulsion composition of claim 4 wherein said water is purified using reverse osmosis.

6. (Currently Amended) The fuel emulsion composition of claim 1 wherein said hydrocarbon petroleum distillate is high paraffinic having an aromatic content of less than 3%.

7. (Original) The fuel emulsion composition of claim 1 wherein said hydrocarbon petroleum distillate is diesel fuel.

8. (Cancelled) The fuel emulsion composition of claim 1 further comprising:

- c) surfactant;
- d) lubricant;
- e) corrosion inhibitor;
- f) antifreeze; and
- g) ignition delay modifier.

9. (Currently amended) The fuel emulsion composition of claim 1 ~~further including a~~ wherein said surfactants ~~that~~ comprises alkylphenoethoxylates, alcohol ethoxylates, fatty alcohol ethoxylates, alkyl amine ethoxylates ~~or~~ and mixtures thereof.

10. (Cancelled) The fuel emulsion composition of claim 9 wherein said surfactant is comprised of one or more of the compositions selected from the group consisting of Triton X-102; Tergitol TMN-10; Neodol N1-5; CA-720; NP-9; and Pluronic 17R-2.

11. (Previously Amended) The fuel emulsion composition of claim 1 further including a lubricant that comprises one or more C12 to C22 backbone chains having an adducted acid, wherein each said adducted acid is selected, independently from the other, from the group consisting of mono-phosphoric acid, di-phosphoric acid, tri-phosphoric acid, mono-carboxylic acid, di-carboxylic acid and tri-carboxylic acid.

12. (Currently Amended) The fuel emulsion composition of claim 11 wherein said lubricant further comprises an alkanolamine neutralizer at about 0.05 % by weight to about 0.4% by weight.

13. (Currently Amended) The fuel emulsion composition of claim 12 wherein said adducted acid is selected from a group consisting of mono-carboxylic acid, di-carboxylic acid, or and tri-carboxylic acid.

14. (Original) The fuel emulsion composition of claim 12 wherein said alkanolamine neutralizer is amino methyl propanol.

15. (Currently Amended) The fuel emulsion composition of claim 1 further including a corrosion inhibitor that is an aminoalkanoic acid at about 0.05 % by weight.

16. (Currently Amended) The fuel emulsion composition of claim 1 ~~wherein said~~ further comprising an antifreeze in said water phase emulsion, wherein said antifreeze is an organic alcohol.

17. (Original) The fuel emulsion composition of claim 16 wherein said antifreeze is methanol.

18. (Currently Amended) The fuel emulsion composition of claim 1 further including an ignition delay modifier added to said additive package that comprises ~~one or more compounds~~ at least one compound selected from the group consisting of nitrates, nitrites and peroxides.

19. (Original) The fuel emulsion composition of claim 18 wherein said ignition delay modifier comprises 2-ethylhexylnitrate.

20. (Cancel) The fuel emulsion composition of claim 18 wherein said ignition delay modifier comprises ammonium nitrate.

21. (Cancelled) The fuel emulsion composition of claim 8 comprising 67% by weight diesel fuel, 30% by weight purified water, 2% by weight methanol, 0.16% by weight X-102; 0.08% by weight N1-5; 0.08% by weight TMN-10, 0.04% Diacid 1550, 0.06% AMP-95, 0.05% Synkad 828, and 0.37% 2-ethylhexylnitrate.

22. (New) The fuel emulsion composition of claim 1, wherein said ammonium nitrate acts primarily as an ignition enhancer at about 0.1 % by weight to about 0.4 % by weight.

23. (New) The fuel emulsion composition of claim 1, wherein said ammonium nitrate acts primarily as an emulsion stabilizer at about 0.04 % by weight to about 0.1 % by weight.

24. (New) The fuel emulsion composition of claim 11, wherein said lubricant is neutralized with an alkanolamine to form a water soluble salt.

25. (New) The fuel emulsion composition of claim 11, wherein said adducted acid acts primarily as a lubricant at about 0.04 % by weight to about 0.1 % by weight.

26. (New) The fuel emulsion composition of claim 12, wherein said alkanolamine neutralizer reduces corrosion.

27. (New) The fuel emulsion composition of claim 16, wherein said antifreeze is present at about 2% by weight to about 9 % by weight.

28. (New) The fuel emulsion composition of claim 1, further comprising: biocides in said additive package.

29. (New) The fuel emulsion composition of claim 1, further comprising:

antifoam agents in said additive package, said antifoam agents are present at less than about 0.0005% by weight.